Keys to Food Safety:

Writing and Implementing a School Food Safety Program Based on HACCP Principles

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Introduction

Serving safe food is a critical responsibility for child nutrition programs and a key aspect of a healthy school environment. Keeping foods safe is also a vital part of healthy eating and a recommendation of the Dietary Guidelines for Americans 2005. When properly implemented, HACCP-based food safety programs will help ensure the safety of school meals served to children across the United States.

Section 111 of the Child Nutrition and WIC Reauthorization Act of 2004 (Public Law 108-265) amended section 9 (h) of the Richard B. Russell National School Lunch Act by requiring school food authorities (SFAs) to implement a food safety program for the preparation and service of school meals served to children in the school year beginning July 01, 2005. The program must be based on Hazard Analysis and Critical Control Point (HACCP) principles and conform to guidance issued by the U.S. Department of Agriculture (USDA). All SFAs must have a fully implemented food safety program that complies with HACCP principles or with the USDA guidelines no later than the end of the 2005-2006 School Year. The *Guidance for School Food Authorities: Developing a School Food Safety Program Based on the Process Approach to HACCP Principles* was released by USDA in June 2005, extending implementation to July 1, 2006.

HACCP is a systematic approach to food safety that follows the flow of food through a foodservice operation to eliminate or reduce the risk of foodborne hazards. USDA recommends that SFAs use the Process Approach to HACCP because it gives them flexibility to create a program that can be used in a variety of situations. The Process Approach, originally developed by the Food and Drug Administration for retail food establishments, categorizes food preparation into three categories based on how many times each menu item moves through the temperature danger zone.

This curriculum and workbook will assist you in writing and implementing a food safety program based on HACCP principles that is customized to your school. Before you attend the workshop, you are expected to:

- Read the USDA document, “Guidance for School Food Authorities: Developing a School Food Safety Program Based on the Process Approach to HACCP Principles”
- Gather information for your program description (Appendix A)
- Assess your current Prerequisite Programs (Appendix B)
- Assess your current Standard Operating Procedures (SOP) (Appendix C)
- Group menu items by Food Flow Process (no cook, same day, and complex) (Appendix E)

Bring all of the above items to the workshop. After you have completed this workshop, you will be able to:

- Develop a Food Safety Team to assist in implementing the food safety program
- Apply concepts for each HACCP principle
- Provide appropriate employee training to support the food safety program
- Write a food safety program for schools in your district

What Is HACCP?

HACCP began in the early 1960s. The National Aeronautics and Space Administration (NASA) needed a system to ensure that astronauts did not become sick from food eaten in space. The Pillsbury Company, along with the United States Natick Laboratories and NASA, developed the HACCP system to ensure food safety.

During the 1990s HACCP was mandated for seafood, meat and poultry processing plants based on

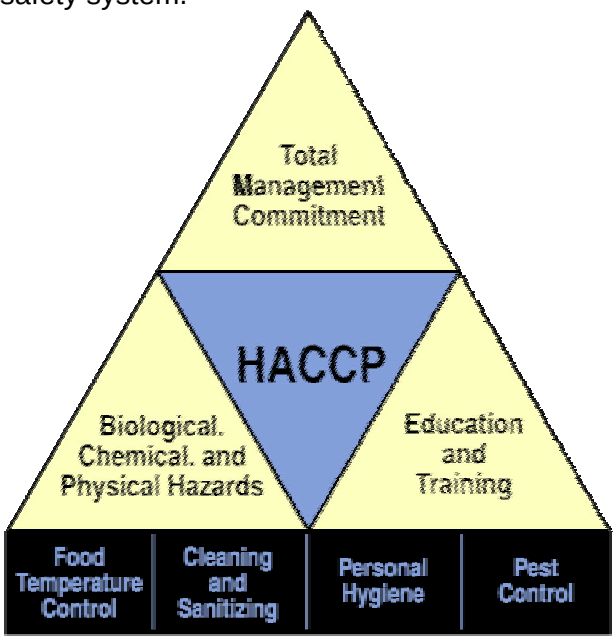
USDA/FDA regulations. In the mid-90s commercial food services, schools with central kitchens and hospitals began to use HACCP Programs voluntarily because HACCP contributes to effective risk management.

As of July 2005, Child Nutrition Programs have a legislative mandate to implement food safety programs based on HACCP Principles. Child Nutrition Programs are the first segment of retail foodservice operations to be mandated to implement a food safety program based on HACCP principles.

HACCP stands for Hazard Analysis Critical Control Points and utilizes the following seven principles:

1. Identify Hazards
2. Identify Critical Control Points
3. Establish Critical Limits
4. Establish Monitoring Procedures
5. Establish Corrective Actions
6. Establish Verification Procedures
7. Establish Record Keeping Procedures

The HACCP pyramid shown below provides an overview of the process of developing a strong food safety program. The base of the pyramid represents the various prerequisite programs that are needed to build a strong foundation for a food safety program. Building from that foundation is hazard analysis, or the process of understanding what potential hazards could affect the safety of food in your school foodservice operation. Education and training is a key component of an effective program—because it is employees at all levels who will be implementing the program. The peak of the pyramid is total management commitment. It is critical that the foodservice director and managers be committed to developing and implementing a food safety program that has integrity. If there is not a management commitment, employees will not buy in to the process. Thus, training, supervision, and rewards all should support a strong food safety system.



Advantages of HACCP

A food safety program based on HACCP principles helps to reduce or eliminate potential food safety hazards in Child Nutrition Programs and:

- Protects your customers
- Improves control of food processes
- Provides a process for continuous self-inspection and self-improvement
- Provides a defense against complaints and legal action
- Complies with the law for Child Nutrition Programs

A HACCP approach helps to:

- Identify foods and procedures most likely to cause foodborne illness
- Develop procedures to reduce the risk of an outbreak
- Monitor processes to keep food safe
- Verify that food served is consistently safe

Getting Ready for a Food Safety Program

Establish a Food Safety Team

A food safety team can be very helpful in developing and implementing a food safety program. While it is important to have one person be in charge of making sure that the food safety program is implemented, there is no one in the operation who can implement the entire program. It is important to engage all employees in the process so that they share ownership in the process and are motivated to follow the plan. Also, employees can contribute important information that will help in establishing the program. The food safety team is involved in the assessment of current operations, development of the food safety plan, and implementation of the plan. Your food safety team probably will be a district-wide group that will develop a basic program and then adapt that plan to the specific needs of each school in the district. Your approach may vary depending on the type of foodservice system that you operate. For example, if your district has all on-site preparation and service one district food safety team could easily develop a basic program that could readily be adapted by each school. If your district has a central kitchen, then the central kitchen food safety plan will differ significantly from that of the satellite schools. Many districts operate systems that have some on-site and some centralized production. Thus, the composition and function of the Food Safety Team may vary significantly among districts.

Develop an Operational Description

The Food Safety Plan for your schools will begin with a program description. A suggested outline for the program description is included as **Appendix A**. Collecting information for writing the program description will get the Food Safety Team thinking about who is being served, how production is done in the operation, how the facility and equipment impacts food production and service, and how food is purchased and stored. These are all important aspects of a strong food safety program.

Assess the Current Operation

The HACCP pyramid illustrates the point that there needs to be a strong foundation upon which to build a food safety program. A good place to start in developing your food safety program is to assess your current operation. The first assessment that needs to be made addresses prerequisite programs. These are programs, such as cleaning and sanitizing, that need to be in place before a HACCP-based program can be effective. Use the **Prerequisite Program Assessment (Appendix B)** to examine the

prerequisite programs currently used in your operation and what programs need to be implemented to get ready for developing your food safety program.

Standard Operating Procedures (SOPs) should be developed to support the prerequisite programs in your operation. SOPs are needed to ensure the safe and sanitary handling of food throughout the flow in a school foodservice operation. Each site within the district should implement written SOPs that are specific to each location where food is stored or handled. SOPs should specify how the establishment will meet those food safety conditions and practices, and how often the activity should be performed and monitored to ensure at a minimum that food handling activities are occurring properly. Establishing SOPs are part of conformance with the USDA Guidelines. SOPs are the what, why, how, when, and who for all procedures in your operation. Use the **Standard Operating Procedures Checklist (Appendix C)** to determine what written SOPs you have and what written SOPs need to be developed for your operation.

There are **Sample Standard Operating Procedures** in **Appendix D.** These samples can be used as they are, or may be modified for your specific foodservice operation. There are several sources for sample SOPs that can be downloaded and modified for your school. The National Food Service Management Institute (http://sop.nfsmi.org/HACCPBasedSOPs.php) and Iowa State University Food Safety Project (www.iowahaccp.iastate.edu) are two excellent sources for SOPs. There may be other sources of good SOPs. Beginning with developed sample SOP saves time and effort, but they must be reviewed and adapted to the operation or they will not be effective. Employees also must be trained on using the SOPs for them to be effective and to ensure food safety.

Food handlers are responsible for practicing, recording, monitoring, and evaluating the SOPs pertinent to their job duties. SOPs lay the foundation for on-going food safety training of foodservice employees in the school kitchens. SOPs also address non-specific hazards that critical control points and critical limits can not address. Thus, SOPs are necessary to fully implement a food safety program and ensure that hazards are minimized. With SOPs in place, a greater emphasis can be put on applying Hazard Analysis Critical Control Points (HACCP) principles required for an effective food safety program.

Standardized recipes are a specific example of SOPs. Following standardized recipes, which include critical control points (CCP) and critical limits (CL), also will help reduce the potential for foodborne illness. The USDA recipes have been revised to include the CCP and CL and are available at: http://www.nfsmi.org/Information/school_recipe_index_alpha.html

Hazard Analysis

An analysis of the hazards that are likely to occur in a foodservice operation needs to be done. Remember, there are three types of hazards:

1. Biological
2. Chemical
3. Physical

Your foodservice staff should review their school foodservice operation and determine which of these hazards could occur. Preventive measures should be adopted to minimize or eliminate the hazards. SOPs provide the basic procedures for controlling hazards.

Biological

Biological hazards include bacteria, viruses, parasites, fungi, and mold. Biological hazards cause more foodborne illnesses than any other type of hazard. Many of these agents are naturally occurring in the environment.

The major emphasis of a food safety program is Potentially Hazardous Foods (PHFs). A PHF, in simple terms, is a food that has been determined to be the cause or associate with a foodborne illness at some point in time. Most PHFs are moist, high in protein, and neutral or slightly acidic.

The U.S. Public Health Service classifies the following foods as potentially hazardous:

- Any food that consists in whole or in part of milk or milk products
- Shell eggs
- Meats, poultry, fish, shellfish, edible Crustacean (shrimp, lobster, crab, etc.)
- Baked or boiled potatoes
- Tofu and other soy protein foods
- Plant foods that have been heat-treated (cooked fruits and vegetables)
- Raw seed sprouts or synthetic ingredients

When PHFs become part of a mixed food, such as tuna salad or chicken salad, the entire food is considered to be potentially hazardous.

Food becomes contaminated primarily by the growth of bacteria or toxins produced by bacteria A bacterium is a single-celled organism that is “vegetative.” In other words, it may grow and reproduce. Some bacteria produce thick-walled spores that are resistant to boiling, freezing, and some sanitizing solutions. Once conditions become favorable again, these spores can become vegetative and continue to grow and produce toxins.

The six factors of bacterial growth are:

- F = Food
- A = Acidity or pH
- T = Temperature
- T = Time
- O = Oxygen
- M = Moisture

We keep food safe by controlling these six factors of growth.

In the temperature range referred to as the Temperature Danger Zone (41\°F to 135\°F), most potentially harmful bacteria are in favorable conditions for rapid growth. **NOTE: The 2005 FDA Food Code is the basis for all recommendations in this document. You will need to follow the local or state food code, and standards for those food codes may differ from the federal food code.** If allowed to thrive, one bacterium can become more than 1 million in just four hours. Exposure of PHFs to the Temperature Danger Zone is cumulative; in other words, it adds up at each stage of the foodhandling process. From thawing to serving, the maximum time a PHF should be in the temperature danger zone is four hours. In foodservice, we usually reduce that time because we do not know how the food was handled prior to delivery to our foodservice operation.

The primary causes of foodborne illness include:

- Time and Temperature abuse
    - Keeping food in the Temperature Danger Zone too long

- Inadequate cooking to appropriate internal temperature
- Not cooling foods properly
- Not reheating foods adequately

- Cross contamination
- Poor personal hygiene

Chemical

There are many chemicals used in school foodservice, and they may be a hazard if they come in contact with food. Chemical hazards can include:

- Cleaners
- Sanitizers
- Detergents
- Drying agents
- Polishes
- Pesticides

Physical

There are objects that can be hazards in foodservice operations. Physical hazards that might occur include:

- Bones
- Metal shavings
- Plastic
- Fingernails
- Bandaids
- Jewelry

The Process Approach To HACCP

The Process Approach to HACCP is a method of classifying food preparation into three broad categories. These categories are based on the number of times a menu item makes a complete trip through the Temperature Danger Zone (41°F to 135°F). The way that a particular food item is prepared at each school will determine the category for the menu item. Thus, a menu alone is not enough information to classify food items. Recipes also are needed. Members of the school food safety team should be familiar with the actual food preparation methods in each school.

1. **No Cook Step** – No cooking is done, so the menu item does not go through the temperature danger zone.
2. **Same Day Service** – The menu item takes one complete trip through the temperature danger zone (during cooking) and is served.
3. **Complex Food Preparation** – The menu item goes through both heating and cooling, taking two or more complete trips through the temperature danger zone.

The ultimate goal of classifying menu items into these three categories is to help prevent a potential foodborne illness from occurring by applying appropriate control measures. If a food safety program is going to be sustainable at the school level, management must be committed to providing employees with the time, education, equipment, resources, and user-friendly tools to implement procedures developed on a daily basis.

For each school, foodservice staff will need to categorize menu items into these three categories. Use the **Menu Worksheet (Appendix E)** to categorize menus items for your school or school district.

Critical Measures, Critical Control Points and Critical Limits

Am important part of a food safety program is identifying what measures need to be taken to prevent, eliminate, or reduce a hazard from occurring. There are three terms that are important to understand:

- Control Measure – Any means taken to prevent, eliminate, or reduce hazards. Includes SOP's, Critical Control Points, and the critical limits established in each of the three processes. As mentioned earlier, SOPs are control measures for non-specific hazards.
- Critical Control Point (CCP) – Operation (practice, preparation step, procedure) to which a preventative or control measure can be applied that would *eliminate, prevent, or minimize hazards*.
- Critical Limits – The time and/or temperatures that must be achieved or maintained to control a food safety hazard.

Let's use an example to illustrate the three terms. When preparing chili from raw ingredients, cooking is a critical control point. The control measure is to cook the ground beef in the chili to the appropriate temperature to eliminate the chance that bacteria will continue to grow. The critical limit for ground beef is "cook to 155^{o}F for 15 seconds".

The most frequent critical control points are: cook, hold, cool, and reheat. The other steps in the food flow (receive, store, prepare) are important and are controlled by following standard operating procedures. There are critical limits for cooking various types of foods (ground beef, whole beef cuts, chicken, ready-to-eat foods, etc.). There also are critical limits for sanitizing (for example, 200 parts per million of quaternary ammonium for 15 seconds or 180^{o}F for 20 seconds).

Building Your Food Safety Program

We have been laying the foundation for a strong food safety program. To have the building blocks for a strong program, you will need to:

- Establish a food safety team
- Develop a program description (Appendix A)
- Assess and strengthen prerequisite programs (Appendix B)
- Assess standard operating procedures (Appendix C)
- Develop standard operating procedures (Appendix D)
- Determine the food processes (no cook, same day, complex) for your menu (Appendix E)
- Establish corrective actions (Appendix F)
- Establish monitoring procedures (Appendix G)
- Establish verification procedures
- Establish record keeping procedures
- Develop your written plan
- Develop a plan for employee training (Appendices H-K)

Establish Corrective Actions

Corrective actions are pre-planned actions that are to be taken if a deviation occurs in a standard operating procedure. For example, an employee reports to work and checks the temperature of the walk-in cooler and finds that it is 45^{o}F, above the recommended high temperature of 41^{o}F. That deviation requires action by the employee—perhaps the action is to call the supervisor who in turn calls

maintenance. Another common deviation is temperatures of cold foods not being cold enough. Sometimes the final rinse temperature of a dish machine is not high enough to adequately sanitize dishes—and a corrective action must be taken before the dish machine can continue to be used. A food safety team needs to determine:

- What problems are likely to occur in the operation.
- What specific actions should be taken to correct each problem.
- Who will be responsible for taking the corrective action.
- Who will document the corrective action.

Use **Appendix F** to identify potential problems that you might encounter in a school foodservice operation at each step of the food flow and effective corrective actions that could be taken to eliminate the problem.

Establish Monitoring Procedures

Monitoring of all activities related to food safety is critical to an effective food safety program. Remember, if it has not been written down, it has not been done! Written documentation is important for solving problems and for demonstrating that correct food handling procedures have been done. The food safety team will need to determine:

- What food safety practices need to be monitored
- How it will be monitored
- When and how often practices will be monitored
- Who will monitor
- When corrective action is needed
- What equipment, tools, and materials will be needed

Appendix G is a worksheet that can be used to determine monitoring procedures that need to be done in your school. It is recommended that your Food Safety Team use this worksheet to determine what monitoring procedures are needed in each school in your district.

Establish Verification Procedures

Verification is the process of confirming that a food safety program is working according to plans. Verification provides the needed information to maintain an effective food safety program and update the program as needed. The food safety team will determine:

- What specific procedures need to be verified?
- How these procedures will be verified?
- Who will conduct the verification?
- When the verification will be done?
- How verification will be documented?

Activity:

1. Ask the group why verification needs to be done.
2. Divide the class into five groups. Assign one of the five questions to each group. Ask them to brainstorm answers and report back to the larger group.

Establish Record Keeping Procedures

A record keeping system needs to be implemented to demonstrate that the food safety program has been implemented. Records will be needed for external verification of your program, and these records may be checked by the health inspector or by state agency staff during reviews. The record keeping

system should be:

- Simple
- Part of the daily/weekly routine
- Accurate
- Comprehensive enough to demonstrate that the food safety program is effective
- Kept for at least one year (some districts choose to keep them for 3 years as they do other records)

Record Keeping Schedule

DOCUMENTATION (RECORDS)	**DOCUMENTATION SCHEDULE**
Food Production Records	
End-Point Cooking Temperature	Daily
Time & Temperature for Holding	Daily
Equipment Temperature Records	
Receiving Logs	Each delivery
Freezer Logs	Daily
Cooler Log	Daily
Thermometer Calibration	Weekly (Minimum)
Storage Room Logs	Daily
Review Records	
Food Safety Checklist	Weekly
Manager's Checklist	Twice yearly
Training Logs	On-going
Corrective Action Records	As necessary

Employee Orientation and Training

As shown in the HACCP pyramid, employee education and training is needed to support a food safety program; thus, a component of your food safety plan should focus on training. Training should be planned based on the needs of the organization. The training needs of employees will differ depending on job responsibilities, experience, and food safety competency.

Training needs to begin immediately when new employees are hired. Orientation is a process of teaching new employees about what is expected of them on the job. It is important to include food safety in the orientation of all new employees. **Appendix H** provides a written SOP for new employee orientation. **Appendix I** provides a checklist of the most important food safety concepts that new employees should know before beginning work. This checklist, which should be signed by the employee and the supervisor to acknowledge that the employee has been told this information, should be filed in the employee's personnel record.

Training of employees related to food safety should be on-going and progressive in content. Use **Appendix J** to assist in planning specific training that will be given to various levels of employees. You may want to involve the Food Safety Team in assessing training needs of employees in your school district. **Appendix K** is a planning calendar for employee training. It is a good practice to plan food safety training for the year to ensure that the training occurs. It also is necessary to document that the training has been presented.

Appendix A

Suggested Content for Program Description

1. School
    a. Name of School
    b. Number of Students Served
2. Description of the School Foodservice Operation
    a. Type of Foodservice System (on-site production, receiving kitchen, regional kitchen)
    b. Employees
        i. Number, positions, and hours
        ii. Number with food safety certification
    c. Number of meals served daily: breakfast, lunch, snacks, catering, a la carte, other
    d. Menu
3. Facility
    a. Amount of space
        i. Storage
        ii. Production
        iii. Service
    b. Evaluation of the general condition
4. Equipment
    a. Number and Type of equipment
    b. Evaluation of the general condition
5. Purchasing
    a. Names of vendors/suppliers
    b. Number and times of deliveries
    c. Form in which food is purchased

Appendix B

Prerequisite Program Assessment

Instructions: Complete this checklist to identify which prerequisite programs you have implemented in your school (or school district) and which ones need to be implemented. There may a prerequisite program listed that may not be applicable (N/A) to your school district.

Prerequisite Program	Yes	No	N/A
Supplier Control			
Letter on file from all vendors stating that they have a HACCP program or follow good manufacturing practices			
Equipment Installation and Maintenance			
Equipment is installed properly			
Equipment maintenance schedules are in place and documented			
Calibration schedules are in place and documented			
Cleaning and Sanitation			
Written procedures for cleaning and sanitizing equipment and facility are in place and documented			
Cleaning and sanitizing procedures are followed			
A master cleaning and sanitation schedule is in place			
Personal Hygiene			
Written policy and procedures for personal hygiene for employees and all visitors (vendors, teachers, students, etc.) are in place and documented			
Personal hygiene policy and procedures are followed by every person who enters the production or service area			
Training			
An orientation program on food safety for new employees is in place and documented			
An on-going training program on food safety and HACCP is in place and documented			

Prerequisite Program	Yes	No	N/A
Chemical Control			
All chemicals are separated from food products (either in a separate storage area or in an area in storeroom well away from food)			
Written procedures to ensure separation of chemicals from foods are in place			
MSDS forms are available for each chemical stored			
Receiving, Storing, and Transporting			
All products are stored under sanitary conditions			
All products are stored in areas with appropriate temperature and humidity			
Traceability and Recall			
All food products are dated when put into storage			
Pest Control			
A pest control program is in place			
Pest control is done by a licensed pest control operator			
Documentation of pest control procedures is in place			
Food Temperature Control			
Food temperatures are maintained and monitored			
Time potentially hazardous food (PHF) spends in the temperature danger zone is monitored			

There should be standard operating procedures (SOPs) related to each of the prerequisite programs. The SOPs will describe: what tasks are to be done, when the tasks will be done, who will complete the tasks, standards that must be met, and how the completion of the task will be documented. Documentation forms are needed to record actions and to identify corrective action taken if standards are not met.

Appendix C

Standard Operating Procedures Checklist

Instructions: Written standard operating procedures (SOP) are needed to guide the food safety program in your school. For each SOP, check **YES** if you have a written SOP, **NO** if you do not have a written SOP but you need to have it, and **N/A** if the SOP is not related to your school or district. Add other SOPs as needed within each category.

Standard Operating Procedure	Yes	No	N/A
Personnel			
Employee health and personal hygiene			
Glove and utensil use			
Contact with blood and body fluids			
Handwashing			
Tasting method			
Eating and drinking in the workplace			
General Equipment Use and Maintenance of Facilities			
Cleaning and sanitizing			
Laundry and linen use			
Machine warewashing			
Manual warewashing			
Facility and equipment maintenance			
Pest control			
Purchasing			
Use of approved vendors			
Specification development and use			
Receiving			
Receiving fresh, refrigerated, frozen foods			
Receiving chemicals			
Storing			
Storing refrigerated and frozen foods			
Storing dry goods			
Storing chemicals			
Rotating stock using FIFO			

Standard Operating Procedure	Yes	No	N/A
Food Preparation			
Calibration of thermometers			
Use of thermometers			
Thawing foods			
Preparing cold foods			
Preparing and cooking hot foods			
Holding foods			
Cooling foods			
Reheating foods			
Use and handling of leftovers			
Transportation of Food			
Transporting food to satellite locations			
Temperature maintenance at the production kitchen			
Temperature maintenance at the receiving/service kitchen			
Transportation of food and equipment from receiving kitchen to production kitchen			
Service			
Cleanliness and sanitation of service areas			
Cleanliness and sanitation of the dining room			
Service temperature			
Consumer Communications			
Responding to a foodborne illness complaint			
Responding to a physical hazard complaint			
HACCP			
Food Safety and HACCP training programs			
Self inspection for continuous quality improvement			
Food safety and HACCP program verification			
Record keeping and documentation			
Employee Orientation			
New Employee Food Safety Checklist			
Other			
Foodservice in emergency situations			
Closing the operation (end of school)			
Opening the operation (beginning of school)			
Visitors in foodservice			
Other:			

Appendix D
Sample Standard Operating Procedures

Handwashing

Policy: All food production personnel will follow proper handwashing practices to ensure the safety of food served to children.

Procedures: All employees in school foodservice should wash hands using the following steps:

1. Wash hands (including under the fingernails) and forearms vigorously and thoroughly with soap and warm water (a temperature of at least 110ºF is required) for a minimum of 20 seconds.
2. Wash with soap – either liquid or powder soap.
3. Use a sanitary nail-brush to get under fingernails.
4. Wash between fingers thoroughly.
5. Use only hand sinks designed for that purpose. Do not wash hands in sinks in the production area.
6. Dry hands with single use towels or a mechanical hot dryer. (Retractable cloth towel dispenser systems are not recommended.) Turn off faucets in a sanitary fashion using a paper towel in order to prevent recontamination of clean hands.

The unit supervisor will:

1. Monitor all employees to ensure that they are following proper procedures.
2. Ensure adequate supplies are available for proper handwashing.
3. Follow up as necessary.

Employee Health and Personal Hygiene

Policy: All foodservice employees will maintain good personal hygiene practices to ensure food safety.

Procedures: All employees in school foodservice must:

Grooming:

1. Arrive at work clean – clean hair, teeth brushed, bathe and use deodorant daily.
2. Maintain short, clean, and polish-free fingernails. No artificial nails are permitted in the food production area.
3. Wash hands (including under fingernails) and up to forearms vigorously and thoroughly with soap and warm water for a minimum of 20 seconds:
   - When entering the facility before work begins.
   - Immediately before preparing food or handling equipment.
   - As often as necessary during food preparation when contamination occurs.
   - In the restroom after toilet use, and when you return to your work station.
   - When switching between working with raw foods and working with ready-to-eat or cooked foods.
   - After touching face, nose, hair, or any other body part, and after sneezing or coughing.
   - After cleaning duties.
   - Between each task performed and after changing disposable gloves.
   - After smoking, eating, or drinking.
   - Any other time an unsanitary task has been performed – i.e. taking out garbage, handling cleaning chemicals, wiping tables, picking up a dropped food item, etc.
4. Wash hands only in hand sinks designed for that purpose.
5. Dry hands with single use towels. Turn off faucets in a sanitary fashion using a paper towel, in order to prevent recontamination of clean hands.

Proper Attire:

1. Wear appropriate clothing – clean uniform with sleeves and clean non-skid close-toed work shoes (or leather tennis shoes) that are comfortable for standing and working on floors that can be slippery.
2. Wear school-issued apron on site.
   - Do not wear apron to and from work.
   - Take off apron before using the restroom.
   - Change apron if it becomes soiled or stained.
3. Wear disposable gloves with any cuts, sores, rashes, or lesions. Gloves generally are worn when handling ready-to-eat foods that will not be heat-treated again. Gloves should be worn when serving food.
4. Change disposable gloves as often as handwashing is required. Wash hands after discarding gloves.

Hair Restraints and Jewelry:

1. Wear a hair net or bonnet in any food production area so that all hair is completely covered.
2. Keep beards and mustaches neat and trimmed. Beard restraints are required.
3. Refrain from wearing jewelry in the food production area.
   - Only a plain wedding band and a watch are permitted.
   - No necklaces, bracelets, or dangling jewelry are permitted.
   - No earrings or piercings that can be removed are permitted.

Illness:

1. Report any flu-like symptoms, diarrhea, and/or vomiting to the unit supervisor. Employees with these symptoms will be sent home, or re-assigned non-food related duties or sick leave, whichever is most appropriate.
   Instances of *Hepatitis A, Salmonella Typhi, Shigella, or E. Coli O157:H7* must be reported to the unit supervisor.

Cuts, Abrasions, and Burns:

1. Bandage any cut, abrasion, or burn that has broken the skin.
2. Cover bandages on hands with gloves and finger cots as appropriate.
3. Inform unit supervisor of all wounds.

Smoking, eating, and gum chewing:

1. Smoke only in designated areas. No smoking or chewing tobacco shall occur inside production facilities.
2. Eat and drink in designated areas only. A closed beverage container may be used in the production area.
3. Refrain from chewing gum or eating candy during work in a food production area.

The unit supervisor will:

1. Inspect employees when they report to work to be sure they are following proper hygiene requirements.

Follow up as necessary.

Receiving

Policy: All food should be checked for proper conditions as it is received in the facility.

Procedures: Employees receiving food should:

General Principles:

1. Receive only one delivery at a time.
2. Remove potentially hazardous foods from the temperature danger zone (41ºF to 135ºF) and place in storage as quickly as possible.
3. Check to make sure frozen food is solid, and does not show evidence of thawing and re-freezing. Common signs of thawing and refreezing are large ice crystals on the surface and frozen juices or liquids in the package.
4. Check to ensure that refrigerated foods are received at or below 41°F.
5. Accept only pasteurized dairy products.
6. Record the date of receipt on the outside of each package, and a use-by date if applicable.
7. Check delivery invoice against all items delivered.
8. Reject potentially hazardous foods that are not at acceptable temperature and cans with swelled tops or bottoms, leakage, incomplete labels, flawed seals, rust, or dents.
9. Evaluate quality of products by odor, sight and touch. Unacceptable products should be rejected. Products must meet order specifications and quality requirements. If any foods are deemed unacceptable, they should be rejected and put in a designated area for credit. Make note on invoice any items rejected.

Receiving Frozen and Refrigerated Foods:

1. Check temperature with a calibrated thermometer to assure that cold foods are below 41°F.
2. Return all foods that should be stored below 41°F that are delivered above 41°F.
3. Check at random and immediately record the temperature of three different types of potentially hazardous food (PHF) items immediately for each delivery (e.g., dairy products, frozen meats, fresh deli-sliced meats). Record date, employee initials, vendor, product name, and temperature of these products in the **Receiving Temperature Log.**
4. Place foods in the proper storage area (cooler or freezer) quickly to avoid potential bacterial growth.

Receiving Dry Goods:

1. Check dry goods for leaks, flaws, or broken packages. Dry goods should be dry, free of mold, and free of insects. Reject flawed packages and put in a designated area for credit.
2. Inspect cans for leaks, incomplete labels, dents, bulges, and other visible signs of damage. Notify a manager if a damaged can is found.
3. Notify the unit supervisor or designee to call the vendor when damaged items are found so the product can be picked up and returned and a credit issued.
4. Date boxes and cans with receiving date.
5. Separate chemicals from foods.
6. Give the **Receiving Temperature Log** to unit supervisor or designee each Friday.
7. Reject and remove damaged packages or cases. Return for credit.

The unit supervisor will:

1. Assure that all foods come from approved vendors and sources.
2. Schedule deliveries for off-peak hours and make sure enough trained staff are available to receive, inspect, and store food promptly.
3. Assure that no home-prepared foods are accepted or used.

4. Check **Receiving Temperature Logs** (for delivery days) to ensure proper procedures are being followed.
5. Follow up with staff as necessary.
6. File HACCP records.
7. Make note of rejected items to receive credit from vendor.
8. Contact vendors to arrange for pickup and credit of rejected products.

RECEIVING TEMPERATURE LOG

School _____ Month _____ 2006

Date	Time	Vendor	Product Name	Form (circle)	Actual Temp. (°F)	Corrective Action Taken	Verified Date/ Initial
				F R			
				F R			
				F R			
				F R			
				F R			
				F R			
				F R			
				F R			
				F R			
				F R			
				F R			
				F R			
				F R			
				F R			
				F R			
				F R			
				F R			

Frozen items should be 32°F or less; Refrigerated items should be 41°F or less when received.

Storage

Policy: All food, chemicals, and supplies should be stored in a manner that ensures quality and maximizes safety of the food served to children.

Procedures: Employees who will be receiving and storing food maintain the storage areas, including dry, refrigerated and freezer storage, by following these steps:

Storage Upon Receiving:

1. Place foods in the proper storage area (refrigerator or freezer) quickly to avoid bacterial growth.
   - ⋕ 41°F or lower – refrigerator temperatures
   - ⋕ 26°F to 32°F or below – deep chill storage temperatures
   - ⋕ 0°F or below – freezer temperatures
   - ⋕ 50° to 70°F at 50 to 60% humidity – dry storage temperatures
2. Place foods into appropriate storage areas immediately upon receipt in the following order:
   - ⋕ Refrigerated foods
     Store foods in designated refrigerators. If food products are stored together in a refrigerator, they should be placed on shelves in the following order:
     - o Prepared or ready-to-eat foods (top shelf)
     - o Fish and seafood items
     - o Whole cuts of raw beef
     - o Whole cuts of raw pork
     - o Ground or processed meats
     - o Raw poultry (bottom)
   - ⋕ Frozen foods
   - ⋕ Dry foods
3. Keep all food items on shelves that are at least 6” above the floor to facilitate air circulation and proper cleaning.
4. Store food out of direct sunlight.
5. Place chemicals and supplies in appropriate storage areas, away from food.
6. Use First In First Out (FIFO) rotation of products in all storage areas to assure that oldest products are used first. Products with the earliest use-by or expiration dates are stored in front of products with later dates. Mixing old food with new food is not acceptable.
7. Make sure all goods are dated with receiving date and use-by date, as appropriate.
8. Store food in original container if the container is clean, dry, and intact. If necessary, repackage food in clean, well-labeled, airtight containers. This also can be done after a package is opened. Food is NEVER put in chemical containers and chemicals are NEVER placed in food storage containers.
9. Store potentially hazardous foods no more than 7 days at 41ºF from date of preparation.
10. Store pesticides and chemicals away from food handling and storage areas. Pesticides and chemicals must be stored in original, labeled containers.

Storeroom sanitation:

1. Maintain clean and uncluttered storage areas. Storage areas should be positioned to prevent contamination from areas where garbage is stored.
2. Dispose of items that are beyond the expiration or “use by” dates.
3. Store all items on shelves at least 6” above the floor to facilitate air circulation

and proper cleaning.

4. Check for signs of rodents or insects. If there are signs of the presence of rodents or insects, notify the unit supervisor.

Temperature Control:

1. Check the temperatures of all refrigerators, freezers, and dry storerooms at the beginning of each shift. This includes both internal and external thermometers, where appropriate.
   - ⁄# Refrigerator temperatures should be between 36 and 41ºF.
   - ⁄# Freezer temperatures should be between -10 and 0ºF.
   - ⁄# Storeroom (dry storage) temperatures should be between 50 and 70ºF.
2. Record temperatures on the appropriate temperature log with employee initial.
3. Notify unit supervisor immediately of any unacceptable temperatures.
4. Limit overloading refrigerated storage areas, as this prevents air flow and makes the unit work harder to stay cold.
5. Use caution when cooling hot food in the refrigerator, as this warms the unit and can put other foods into the temperature danger zone.
6. Keep units closed as much as possible to maintain proper temperatures.
7. Defrost all units on a regular schedule to aid in proper maintenance and air circulation.

The unit supervisor will:

1. Monitor temperature logs of storage rooms, freezers, and refrigerators.
2. Review logs to make sure there are no temperature deviations.
3. Document all corrective action taken on the appropriate forms.
4. Include cleaning and sanitizing of all storage areas in master cleaning schedule.
5. Follow up on all reported problems.
6. File logs with HACCP records.

FREEZER TEMPERATURE RECORD

School_____ Month_____ 2006

-- Freezer --

Day	Time	Recorded by	External	Internal	Corrective Action
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

Optimal Ranges: -10∀to 0∀F

Please report readings that do not fall in the optimal ranges to a manager or supervisor. Corrective action must be noted if temperatures fall outside of appropriate range.

REFRIGERATOR/FREEZER TEMPERATURE RECORD

School _____ Month _____ 2006

			-- Refrigerator --		-- Freezer --		
Day	Time	Recorded by	External	Internal	External	Internal	Corrective Action
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

Optimal Ranges: 32∀to 41∀F (Refrigerator); -10° to 10∀F (Freezer)

Please report readings that do not fall in the optimal ranges to a manager or supervisor. Corrective action must be noted if temperatures fall outside of appropriate range.

Preparing Cold Foods

Policy: Temperatures of all cold foods will be taken during preparation to ensure safety of all food served to children. All foods will be prepared using appropriate practices and procedures to ensure safety and sanitation.

Procedures: Employees preparing cold food should:

Prepare cold foods:

1. Pre-chill ingredients for foods served cold (sandwiches and salads) to 41°F or below before combining.
2. Prepare foods at room temperature in 2 hours or less, working with small batches of food items. TOTAL time of food at room temperature must not exceed 4 hours. This includes time spent at receiving, assembly and holding.
3. Prepare raw products away from other products. This reduces the opportunity of cross contamination with any ready-to-eat foods.
4. Discard thawed potentially hazardous foods that have been above 41°F for more than 4 hours.

Maintain food contact surfaces:

1. Use color-coded cutting boards designated for products not receiving further heat treatment.
   - red for meat
   - green for vegetables or fruits
   - yellow for breads
2. Clean and sanitize all surfaces, cutting boards, and utensils that have been used in the preparation of raw meats, poultry, and fish prior to using for fruits, vegetables, and ready-to-eat foods. Cleaning and sanitizing steps MUST be done separately in order to be effective.

Take temperatures:

1. Use a calibrated thermometer to take the temperatures of designated food products.
2. Wipe the thermometer stem with alcohol wipes prior to and after taking the temperatures of each food; or wash stem, rinse, and sanitize.
3. Record temperatures in the **Service Temperature Record.**

The unit supervisor will:

1. Monitor these procedures daily.
2. Take corrective action as necessary.
3. Follow up as needed.

File logs in HACCP records.

SERVICE TEMPERATURE LOG

School ____________________

Hot Foods must be 140°F or higher
Cold Foods must be 41°F or lower

Week of ____________________

Date	Menu Item	Temperature		Temperature		Corrective Action
		Start	Initials	End	Initials	

Please report readings that do not fall in the optimal ranges to the unit supervisor.
Corrective action must be noted if temperatures fall outside of appropriate range.

Preparing and Cooking Hot Foods

Policy: Temperatures of all potentially hazardous hot foods will be taken during preparation and service to ensure safety of food served to children. All hot foods will be prepared using appropriate practices and procedures to ensure safety and sanitation.

Procedures: Employees involved in the production of food must complete the following steps:

Prepare hot foods:

1. Cook hot foods to these minimum end-point temperatures or higher.

Poultry	165ºF for 15 seconds
Stuffing, stuffed meats, casseroles, and other dishes combining raw and cooked foods	165°F for 15 seconds
Ground or flaked meats	155°F for 15 seconds
Beef roasts; pork roasts and chops	145°F for 3 minutes
Beef steaks, veal, lamb	145°F for 15 seconds
Commercially raised game animals	145°F for 15 seconds
Fish and foods containing fish	145°F for 15 seconds
Shell eggs (for immediate service)	145°F for 15 seconds
Vegetables (canned, frozen, fresh)	140°F for 15 seconds
Potentially Hazardous Foods cooked in microwave	165°F; let food stand for 2 minutes after cooking

2. Take end-point cooking temperatures.
3. Record the end-point cooking temperature on the **Service Temperature Record.**
4. Use batch cooking to reduce holding time of foods.
5. Allow temperature of cooking equipment to return to required temperatures between batches.
6. Do not use hot holding equipment to cook or reheat foods.
7. Heat fruits, vegetables, and ready-to-eat (RTE) commercially processed and packaged foods to 140°F for hot service.
8. Prepare foods at room temperature in two (2) hours or less, or the food item should be returned to the refrigerator. TOTAL time of food at room temperature shall not exceed 4 hours. This includes time spent at receiving, assembly, and holding.
9. Prepare raw products away from other products not receiving heat treatment. This reduces the opportunity of cross contamination with any ready-to-eat foods.

Maintain food contact surfaces:

1. Use color-coded cutting boards for all products.
   - red for meat
   - green for vegetables or fruits
   - yellow for breads.
2. Clean and sanitize all food contact surfaces, cutting boards, and utensils that have been used in the preparation of raw meats, poultry, and fish prior to using for raw fruits and vegetables and ready-to-eat foods. Cleaning and sanitizing steps MUST be done separately in order to be effective.

Take temperatures:

1. Use a calibrated thermometer to take the temperatures of all food products.

2. Wipe the thermometer stem with alcohol wipes prior to and after taking the temperatures of each food; or wash stem, rinse, and sanitize.
3. Take temperatures in the thickest part of a food item (usually the center). Two readings should also be taken in different locations to assure thorough cooking to the appropriate end-point temperature.
4. Record the end-point cooking temperature on the **Service Temperature Record.**

The unit supervisor will:

1. Monitor preparation procedures daily.
2. Take corrective action as necessary.
3. Follow up as necessary.
4. File logs with HACCP records.

Transportation of Foods from Production Kitchen

Policy: Food will be transported in a manner to ensure its quality and safety.

Procedures: Employees involved in the production or transportation of food from a production kitchen to a satellite location must be responsible for the safety of food handled. Steps include:

1. Preheating holding equipment.
2. Calibrating thermometers each week or sooner, if dropped or inaccurate.
3. Using calibrated thermometers to take food temperatures.
4. Recording temperature and time in **Service Temperature Log** with employee initial.

Prior to transport, employees at production kitchen should:

1. Take temperature of food during loading. Hot foods should be at or above 135ºF and cold food should be at or below 41ºF.
2. Record temperatures in log and initial the entry.

Employees at Satellite Location:

1. Take and record food temperatures upon arrival at the satellite location. Employee should initial entry.
2. Take and record temperature of food before it is returned to the central kitchen if leftover food is not discarded. Employee should initial entry.

Following return of transport, employees at central kitchen should:

1. Take and record temperature of food and employee initials upon return from a satellite location.
2. Discard cold foods that are not at or below 41ºF and hot foods that are not at or above 135ºF.
3. Cool hot cooked food that is at or above 135°F. The product must be cooled to 70°F in 2 hours from the last 135°F reading. If food temperature has not reached 70°F within 2 hours, dispose of the food. Recommended procedure is cooling food to 70°F within 2 hours and to 41°F within 4 additional hours.
4. Record the product name, date, temperature, and time on the product.
5. Store chilled food in refrigerator or freezer.

The unit supervisor will:

1. Review logs daily to ensure the temperatures and corrective actions are being met.
2. Follow up as necessary.
3. File temperature logs in HACCP file.

Holding Foods

Policy: All hot foods will be held hot (above 135ºF) and cold foods will be held cold (below 41ºF). Foods temperatures will be taken during holding to ensure the safety of food served to children . When in doubt about the safety of food, it will be discarded.

Procedures: Employees involved in the production or service of food must:

Hold Hot Foods:

1. Prepare and cook only as much food as is needed. Batch cooking is ideal for maintaining food temperature and quality.
2. Use hot holding equipment that can keep hot foods at 135ºF or higher.
3. Follow manufacturer's instructions in using hot- holding equipment. (NOTE: Customize your SOP by including instructions. For example, it may be necessary to indicate that steam table wells need to be filled with hot water to a specific level.)
4. Keep foods covered to retain heat and to keep contaminants from falling into food.
5. Measure internal food temperatures at least every 2 hours using a calibrated thermometer. Record temperatures in the **Service Temperature Record.**
6. Reheat foods only in appropriate cooking equipment (oven, steamer, microwave, steam-jacketed kettle) to 165ºF within 2 hours, then transfer to holding equipment. Hot holding equipment should never be used to reheat foods. Foods should be reheated only once and any uneaten servings of reheated food items should be discarded.
7. Discard hot foods after 4 hours if they have not been properly held at or above 135ºF.
8. Do not mix freshly prepared foods with foods being held for service to prevent cross contamination.

Hold Cold Foods:

1. Use cold holding equipment that can keep cold foods at 41ºF (5ºC) or lower.
2. Measure internal food temperatures at least every two (2) hours using a calibrated thermometer. Record temperatures in the **Service Temperature Record.**
3. Protect cold foods from contaminants with covers or food shields.
4. Place cold foods in pans or on plates first, never directly on ice. The only exceptions are whole fruits and vegetables. Ice used on a display should be self-draining. Wash and sanitize drip pans after each use.

The unit supervisor will:

1. Monitor hot and cold holding procedures daily.
2. Take corrective action as necessary.
3. Follow up as necessary.
4. File temperature logs with HACCP records.

Service of Food

Policy: All food is served in a manner to ensure food safety.

Procedures: Employees involved in the service of food must observe the following procedures to ensure its safety:

Good personal hygiene:

1. Wash hands before handling place settings or food.
2. Do not touch cooked or ready-to-eat foods with bare hands. Use gloves or utensils.
3. Wash hands between each different task. For example, if the same employee is loading dirty dishes and taking out clean dishes, a thorough handwashing must be done between the two tasks. Dipping hands in sanitizer is not acceptable practice.
4. Do not eat or drink in food production or service areas.

Service utensils and serviceware:

1. Clean and sanitize utensils before using them. Use separate utensils to serve each food item.
2. Store utensils properly with the handle extended above the container, or on a clean and sanitized food-contact surface.
3. Use serving utensils with long handles to keep hands away from the food item.
4. Handle all glassware without touching outer or inner rim. Trays and dishes should be handled by the bottom or outer rim only. Avoid touching any surface that may contact food.
5. Hold flatware and utensils by the handles.

Cleaning/sanitation:

1. Clean the area on and around the service line, using warm soapy water and clean cloths. Thoroughly rinse area after cleaning.
2. Sanitize the area on and around the service line, using an approved sanitizer.
3. Maintain area cleanliness before service begins and as needed throughout service.
4. Use designated cloths for cleaning only food spills.

Service:

1. Take temperatures of foods at the beginning of each service period.
2. Record temperatures on **Service Temperature Record** along with employee initials.

The unit supervisor will:

1. Monitor employees to ensure that proper service techniques are being followed.
2. Review logs to ensure temperatures and corrective actions are being met.
3. Follow up as necessary.
4. File logs with HACCP records.

Cooling Foods

Policy: When cooked food will not be served right away (or is left over and can be saved), it must be cooled as quickly as possible to prevent microbial growth. Temperatures will be taken during the cooling process to make sure that time and temperature standards are met to ensure the safety of food served to children.

Procedures: There are two acceptable methods of cooling foods outlined below. Employees involved in the cooling process of food must observe the following procedures:

One-stage (four hour) method:

1. Cool hot cooked food from 135ºF to 41ºF within 4 hours.
2. Take temperatures at 4 hours to make sure that the appropriate temperature was reached.
3. Reheat food to above 165ºF if food has not cooled to 41ºF in 4 hours.

Two-stage method (*recommended by the FDA Food Code)

1. Cool hot cooked food from 135ºF to 70ºF or lower within 2 hours, and then cool down to 41ºF or lower within an additional four 4 hours, for a total cooling time of 6 hours.
2. Take temperatures at the 2 and 6 hour intervals to make sure that appropriate temperatures were reached.
3. Reheat food to above 165ºF if food has not cooled to 41ºF in 4 hours.

**NOTE: The reason that the two-stage method allows 6 hours to cool is that the food passes through the most dangerous part of the temperature danger zone – where the growth of microorganisms is ideal – during the first 2 hours of cooling.*

Factors that affect how quickly foods will cool down:

1. Size of the food being cooled – the thickness of the food or distance to its center plays the biggest part in how fast a food cools.
2. Density of the food – the denser the food, the slower it will cool.
3. Container in which a food is stored – stainless steel transfers heat from foods faster than plastic. Shallow pans allow the heat from food to disperse faster than deep pans.

Food may not move through the temperature danger zone fast enough if the food is still hot when placed in the cooler or freezer. The hot food may also raise the temperature of the surrounding food items, placing them in the temperature danger zone (above 41-135°F.)

Listed below are a few methods than can be used to cool foods more quickly. The methods can be used alone or in combination in order to cool foods quickly.

Methods for cooling foods:

1. Reduce the quantity of the food being cooled. Cut large food items into smaller pieces or divide large containers of food into smaller containers.
2. Use blast chillers or tumble chillers to cool food before placing it into refrigerated storage.
3. Use ice-water baths. Divide cooked food into shallow pans or smaller pots then place them in ice water. Stir food items frequently.
4. Add ice or water as an ingredient. This works for foods that contain water as an ingredient, such as a soup or stew. The recipe can initially be prepared with less water than is required. Cold water or ice can then be added after cooking to cool the product and to provide the

remaining water required in the recipe.

5. Use a steam-jacketed kettle as a cooler. Run cold water through the jacket to cool the food in the kettle.
6. Stir foods to cool them faster and more evenly. Ice paddles (plastic paddles that are filled with water and frozen) and chill sticks can be used to stir foods through the cooling process. Stirring food with these cold paddles chills foods very quickly.

The unit supervisor will:

1. Review logs daily to ensure temperatures and corrective actions are being met.
2. Follow up as necessary.
3. File temperature logs with HACCP records.

Dish Machine Forms

Chemical Dish Machine Monitoring Form

School _____ Month _____ 2006

Date	Meal	Initials	Wash	Final Rinse	Water Press.	Test Strip	Corrective Action
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						

Directions:

1. Complete this form prior to each meal.
2. Use appropriate test strip to check sanitizer concentration.
3. Attach test strip to form.
4. Record date, initials, and temperatures for each cycle.
5. If sanitizer concentration is outside the acceptable range or the thermal strip does not turn to black, indicate corrective action on form.

Temperature Standards:

- **Wash temperature – 120°F**
- **Final rinse temperature – 75-120°F**
- **Final rinse pressure – 15-25 psi**

Temperature Monitoring Form
1-Compartment High Temperature

School _____ Month_____ 2006

Date	Meal	Initials	Wash	Final Rinse	Water Press.	Thermal Strip	Corrective Action
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						
	B L						

Directions:

6. Complete this form prior to each meal.
7. Attach thermal strip to a tray or plate and run through machine.
8. Record date, initials, and temperature.
9. If temperatures are outside the acceptable range or the thermal strip does not turn to black, indicate corrective action on form.

Temperature Standards:

- **Wash temperature – 150-160°F**
- **Final rinse temperature – 165°F**
- **Final rinse pressure – 15-25 psi**

Appendix E
Menu Worksheet

School _____
Time Period _____

No Cook Items	Same Day Service Items	Complex Items

Appendix F
Monitoring Procedures Worksheet

Food Flow Step	What Monitored?	How?	When?	By Whom?
Receiving				
Storing				
Preparing				
Cooking				
Holding				
Transporting				
Serving				
Cooling				
Reheating				
SOPs				

Appendix G
Corrective Action Worksheet

Food Flow Step	Potential Problem	Potential Corrective Actions
Receiving		
Storing		
Preparing		
Cooking		
Holding		
Transporting		
Serving		
Cooling		
Reheating		
SOPs		

Appendix H

SAMPLE
Standard Operating Procedure

New Employee Orientation

Policy: All new foodservice employees will receive training on basic food safety procedures during the first day of employment.

Procedures: All employees in foodservice must:

1. Meet with foodservice manager or unit supervisor to receive training on basic food safety procedures.
2. Review each point in the **Food Safety Checklist** with supervisor. Each procedure will be discussed thoroughly with implications for food safety described.
3. Ask questions of supervisor if policy or procedure is not clear.
4. Read, sign, and date the statement at the end of the checklist, indicating understanding and agreement with stated procedures. Supervisor also must sign and date form.
5. Receive a signed copy of the document.

The foodservice manager or unit supervisor will:

1. Schedule 20-30 minutes for the orientation session.
2. Inform new employees of the purpose and time of the session.
3. Explain the purpose of the checklist to employees.
4. Discuss each policy and procedure on the checklist. Refer to the department **Standard Operating Procedures Manual** as necessary. Check off each procedure as it is discussed. If employees have questions, please note and follow up, if appropriate.
5. After reviewing all procedures, supervisor should request employees to read, sign, and date the statement at the end of the form, indicating understanding and agreement. The supervisor also should sign and date the form.
6. Provide a copy of this form to each employee. Inform employees that a copy will be placed in their personnel file. If a copy is required for the Human Resources department, provide it and inform employees.
7. Remind employees of the location of a copy of the department **Standard Operating Procedures Manual.** This manual can be used as a reference, if questions or concerns occur later.
8. Thank employees for participating. Emphasize again the priority of food safety and the involvement of every staff member.

Appendix I NEW FOODSERVICE EMPLOYEE ORIENTATION
FOOD SAFETY CHECKLIST

Name_____ Position _____

PROCEDURES	√	COMMENTS
Personal Hygiene		
Designated uniform – clean daily		
Hair restraint – cover all hair		
Jewelry – limited to watch, plain ring, & simple earrings		
Fingernails – short, unpolished, clean with no false nails		
Employees with illness - review district policy and Food Code		
Open sores, cuts, abrasions, or burns must be completely covered when handling food		
Smoking policy – review district policy and Food Code		
Sneezing/coughing - appropriate action		
Eating, drinking, & gum chewing in designated areas		
Break and Meal Policy: Where breaks/meals occur When breaks/meals occur		
Locker room – storage of personal items		
Handwashing & Glove Use		
Handwashing procedures: When, Where, and How to wash hands		
Use of disposable gloves – when to change		
Cleaning and Sanitizing		
Laundry and linen use		
How to prepare and when to use cleaning solutions		
How to prepare and when to use sanitizing solutions		
Use of test strips to determine product strength		
MSDS accessibility		
Other Information		
Provided copy of Food Safety Brochure to employee		

I understand these policies and procedures and I agree to follow these policies and procedures because of their importance to safety for children. I understand that following these policies and procedures is a condition of employment in this department and school district.

_____ _____ _____ _____
Employee Name Date Foodservice Manager Date

Appendix J
Identification of Food Safety Training Needs of Employees

Level of Employee	Food Safety Concepts	Sources of Training
Food Service Worker		
Food Service Manager		
Food Service Director		

Appendix K

Annual Employee Training Calendar

School _____ *Year* _____

Education Topic	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July